

That which is claimed is:

1. A method of preparing a metal-silicone rubber composite, the method comprising the steps of:

- (i) depositing a layer of gold on a surface of a mold;
- (ii) depositing a primer layer of a metal on the layer of gold, wherein the metal is selected from aluminum, chromium, titanium, and copper;
- (iii) applying a radiation-curable silicone composition on the primer layer;
- (iv) curing the silicone composition with radiation to form a silicone rubber; and
- (v) removing the silicone rubber from the mold, whereby the layer of gold and the primer layer are transferred to the silicone rubber.

2. The method according to claim 1, wherein the surface of the mold has a release coating thereon.

3. The method according to claims 1 or 2, wherein the layer of gold has a thickness of from 25 to 500 nm.

4. The method according to claims 1, 2, or 3, wherein the primer layer has a thickness of from 1 to 50 nm.

5. The method according to claims 1, 2, 3, or 4, wherein the primer layer is aluminum.

6. The method according to claims 1, 2, 3, 4, or 5, wherein the radiation-curable silicone composition comprises (i) an organopolysiloxane containing radiation-sensitive functional groups and (ii) a photoinitiator.

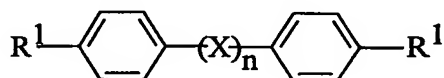
7. The method according to claims 1, 2, 3, 4, 5 or 6, wherein the radiation-curable silicone composition comprises (i) an organopolysiloxane having an average of at least two alkenyl groups per molecule, (ii) a mercapto-functional compound in an amount sufficient to cure the composition, and (iii) a catalytic amount of a photoinitiator.

8. The method according to claim 7, wherein the radiation-curable silicone composition comprises (A) an organopolysiloxane having an average of at least two alkenyl groups per molecule, a number-average molecular weight of from 1,000 to 50,000, and an average of from 10 to 90 mol% of silicon-bonded phenyl groups per molecule;

(B) a mercapto-functional compound in an amount sufficient to cure the composition, wherein the mercapto-functional compound is selected from (i) a mercapto-functional organosiloxane having an average of at least two mercaptoalkyl groups per molecule and (ii) a mercapto-functional organic compound having an average of at least two mercapto groups per molecule, and

(C) a catalytic amount of a photoinitiator.

9. The method according to claim 8, wherein the radiation-curable silicone composition further comprises (D) a liquid crystal miscible in components (A) and (B) combined, wherein the liquid crystal is selected from (i) at least one compound having the formula:



and (ii) a mixture comprising (i) and from 1 to 10% of at least one terphenyl compound having the formula:



wherein each R^1 is independently selected from C_1 to C_{20} alkyl, C_5 to C_8 cycloalkyl, $-OR^2$, $-O(O=)CR^2$, $-C\equiv N$, $-NO_2$, $-CH=CHCOOR^2$, $-F$, $-Cl$, $-Br$, and $-I$, wherein R^2 is C_1 to C_{20} alkyl, X is a divalent organic group selected from $-CH=N-$, $-N=N-$, $-N=N(O)-$, $-CH=CH-$, $-C\equiv C-$, $-C(=O)O-$, and $-CH=N-N=CH-$, and n is 0 or 1.